EGI Federation Strategy_

2026–2030

From Computing Federation to Europe's AI–Ready Compute & Data Continuum for Research and Innovation

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EGI Federation for Data-Intensive Research_

The EGI Federation delivers digital infrastructure and collaborative innovation at scale, accelerating research across scientific disciplines.

The EGI Federation delivers large-scale digital infrastructure and collaborative innovation, enabling tens of thousands of researchers across scientific disciplines to accelerate discovery. Through a federation of hundreds of service providers from both public and private sectors across Europe and beyond, it provides advanced computing and data analytics capabilities that no single organisation could achieve alone.

The EGI Foundation, headquartered in Amsterdam, coordinates this federation through a two-sided platform: on one side, service providers harmonise interfaces and connect to a common hub; on the other, research communities shape demand, simplify access, and drive innovation. This model unites leading national organisations and research infrastructure hubs across Europe, turning individual contributions into large-scale collaboration and collective investment.

As research becomes increasingly data-intensive and AI-enabled, EGI is evolving to meet these challenges. The 2026-2030 strategy charts this transformation **from computing federation to Europe's AI-ready compute-data continuum:** a trusted, sovereign infrastructure where researchers can seamlessly access the computing power, data resources, and expertise they need to address humanity's greatest challenges.

EGI Federation Today_

Pan-European access to general and specialised computing resources at scale

Accelerated discovery through seamless collaboration across borders

Expert support from distributed teams across Europe

Skills development through training and shared knowledge

Efficient resource use across different administrative domains

Open science with assured access to shared resources and expertise

Innovation opportunities through collaborative development

EGI in Numbers

28
Council Participants

200+
High-Throughput Compute providers

29K+
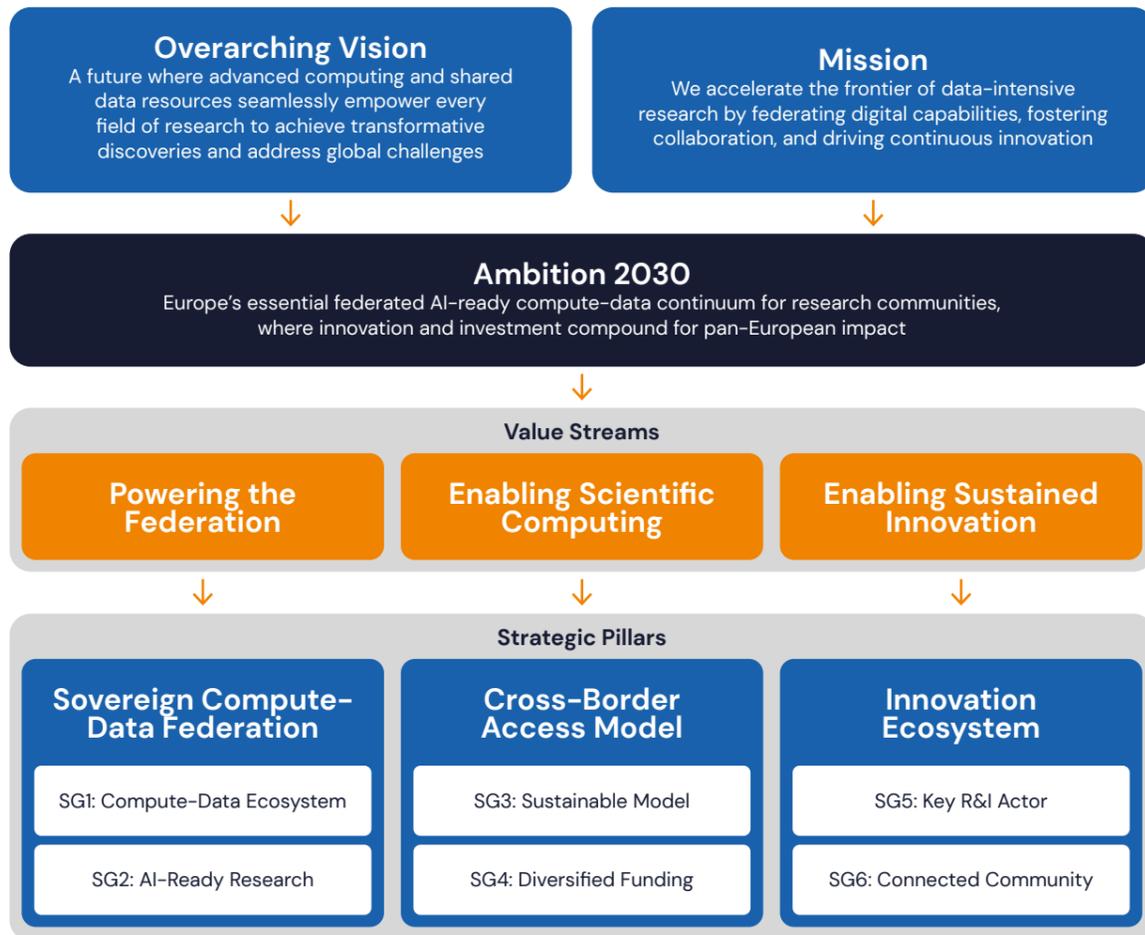Scientific Publications Supported

580PB
Online Storage Capacity

78K+
Supported Users

20+ Years
Operational Excellence

Strategy at a Glance_

Overarching Vision	Mission
A future where advanced computing and shared data resources seamlessly empower every field of research to achieve transformative discoveries and address global challenges	We accelerate the frontier of data-intensive research by federating digital capabilities, fostering collaboration, and driving continuous innovation

Ambition 2030
Europe's essential federated AI-ready compute-data continuum for research communities, where innovation and investment compound for pan-European impact

Value Streams

Powering the Federation	Enabling Scientific Computing	Enabling Sustained Innovation

Strategic Pillars

Sovereign Compute-Data Federation	Cross-Border Access Model	Innovation Ecosystem
SG1: Compute-Data Ecosystem	SG3: Sustainable Model	SG5: Key R&I Actor
SG2: AI-Ready Research	SG4: Diversified Funding	SG6: Connected Community

Vision, Mission & Ambition_

Our Vision

A future where advanced computing and shared data resources seamlessly empower every field of research to achieve transformative discoveries and address global challenges.

This vision describes the world we seek to create, where research of all kinds can harness digital capabilities to advance knowledge and solve humanity's greatest challenges.

Our Mission

We accelerate the frontier of data-intensive research by federating digital capabilities, fostering collaboration, and driving continuous innovation.

EGI uniquely connects distributed IT resources into an interoperable federation, addressing technical and policy aspects across geographical boundaries and disciplines. At the same time, EGI drives collaborative innovation by bringing together research communities, service providers, and technology experts to jointly develop solutions, share knowledge, and co-create new capabilities.

Ambition 2030

The EGI Federation is Europe's essential federated AI-ready compute-data continuum for research communities, where innovation and investment compound for pan-European impact.

By 2030, the EGI Federation will be a key player in AI-ready research infrastructure across Europe. Through its federated model, innovation outcomes will be valorised into sustained capabilities, and national investments will multiply into pan-European impact

The Strategic Context_

Five key trends are reshaping the landscape for research infrastructure. These trends create both significant opportunities and challenges that demand strategic evolution.

01

Open Science Requires Trusted, Resilient Infrastructure

UNESCO's 2021 Recommendation on Open Science establishes open science as an international standard. The European Open Science Cloud (EOSC) is Europe's flagship initiative to make research data and services findable, accessible, interoperable, and reusable (FAIR) across borders and disciplines. Federated infrastructures that enable openness through trust are essential to realising this vision.

02

AI Transforms Research Across All Disciplines

Artificial intelligence has moved from specialised application to fundamental research tool, transforming scientific research from literature reviews to lab automation. The European Commission's RAISE initiative recognises that researchers now expect AI-ready infrastructure as standard capability.

03

Cross-Domain Infrastructure Demand

Digital transformation creates demand for horizontal infrastructure serving multiple disciplines simultaneously. ESFRI's 2024 Landscape Assessment identifies critical gaps in collaboration between Research Infrastructures and e-infrastructures, gaps that federated approaches can address.

04

Digital Sovereignty Becomes Operational

European entities increasingly prioritise digital sovereignty, reducing dependency on non-European technology providers whilst maintaining openness. The EC's 2025 Strategy on Research and Technology Infrastructures identifies research infrastructures as "underpinning European technological and data sovereignty."

05

Building Digital Workforce Capacity

Skills gaps constrain both the operation and use of federated research infrastructure. The scarcity of professionals combining infrastructure expertise with research domain knowledge creates a critical bottleneck requiring new career pathways.

Our Value Streams_

EGI delivers value through three core, interconnected value streams. Each defines how value is created and delivered through the interaction of different stakeholder groups.

VS1: Powering the Federation

Enable trusted federation coordination through platforms, policies, and governance

The EGI Foundation operates critical federation services whilst EGI Participants and affiliated Service Providers contribute to a federated ecosystem. Together, we provide the platforms, standards, and governance that enable distributed resources to work as one coherent infrastructure.

For whom

EGI Participants, Affiliated Service Providers, and external organisations (Research Infrastructures, EOSC, Data Spaces) seeking federation expertise

Strategic evolution

Expand federation capabilities to integrate data providers and strengthen positioning as Europe's compliance-ready research ecosystem

VS2: Enabling Scientific Computing

Provide seamless access and value-added services in the AI-ready compute-data continuum

We deliver integrated computing services spanning high-throughput computing, cloud, and HPC, combined with data platforms and AI capabilities. Research communities receive tailored support, while individual researchers are connected to the most suitable providers.

For whom

Research Communities, Research Infrastructures, International Projects, Individual Researchers, SMEs, and Public Administrations

Strategic evolution

Deliver an AI-ready compute-data continuum with improved funding models for cross-border access at scale and domain-specific exploitation platforms

VS3: Enabling Sustained Innovation

Coordinate collaborative R&I through connected communities and aligned funding

We pool expertise from federation members and transition innovations to operational services that persist beyond project lifecycles. Our collaborative innovation framework enables cutting-edge solutions to shared challenges with pan-European impact.
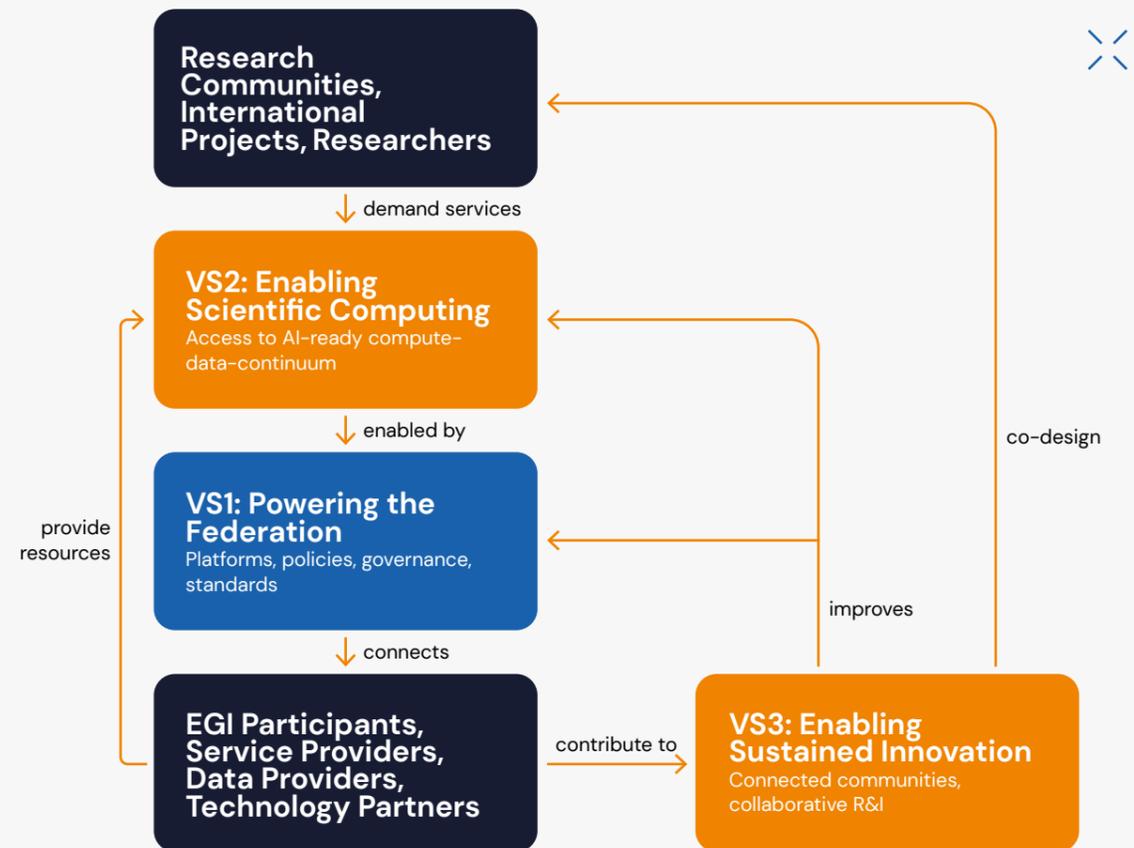
For whom

EGI Federation Members seeking collaborative R&I programmes, and Research Communities seeking environments to co-design advanced solutions

Strategic evolution

Establish participatory innovation that persists beyond project lifecycles through connected communities, diversified funding, and demonstrated impact measurement

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How the Value Streams Connect

Research Communities, International Projects, Researchers

↓ demand services

VS2: Enabling Scientific Computing — Access to AI-ready compute-data-continuum

↓ enabled by

VS1: Powering the Federation — Platforms, policies, governance, standards

↓ connects

EGI Participants, Service Providers, Data Providers, Technology Partners

contribute to →

VS3: Enabling Sustained Innovation — Connected communities, collaborative R&I

provide resources · co-design · improves

VS1 coordinates providers and enables them to supply resources through VS2 to research communities. VS3 drives continuous improvement across the federation, co-designing solutions with research communities and evolving both federation capabilities and scientific computing services.

PILLAR

01

Leadership in Sovereign Compute-Data Federation_

Building on two decades of operating a trusted, pan-European federation, we will deliver a sovereign, integrated compute-data ecosystem that respects Europe's diverse national priorities.

Strengthen, Federate and Integrate a Sovereign Compute-Data Ecosystem

We will evolve EGI into a resilient, federated ecosystem that seamlessly integrates local, regional, national, and community compute and data resources. By developing interoperable solutions for identity, computational workload, and data management, we create an environment where researchers can discover and analyse resources without technical barriers, whilst ensuring sovereignty and FAIR-compliant data access.

What We Will Deliver

- **Expanded Compute Continuum:** Growing capacity with diversified capabilities including Cloud, HTC, HPC, quantum computing, and AI-ready resources

- **Compute-Data Integration:** A data continuum integrated with compute services, enabling researchers to process data where it resides

- **Thematic Data Exploitation Platforms:** Domain-specific platforms (Virtual Research Environments, Digital Twins) integrated with the compute-data continuum

- **Secure Sensitive Data Processing:** Federated solutions for cross-institute and cross-border sensitive data access, including Trusted Research Environments

- **EOSC Contribution:** An EOSC Compute Node expanding the EOSC EU Node, with federating services tailored to EOSC Nodes

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European Leadership in AI-Ready Research Infrastructure

We will accelerate Europe's capacity for data-intensive and AI-based research by coordinating a federated network of AI experts, providing training and technical support to research communities, enabling federation members to expand their AI-capable infrastructure, and collaboratively developing AI solutions in alignment with RAISE.

What We Will Deliver

- **AI Services Portfolio:** New and extended service catalogues with general and thematic AI solutions, frameworks, models, and datasets, all compliant with relevant AI regulations

- **Federated AI Competence Centre:** A network of AI experts from EGI participants and collaborating research communities delivering regular training programmes and technical support across the federation

- **RAISE Contribution:** Federation expertise contributed to RAISE Secretariat and governance, with EGI recognised as a key contributor in pooling compute, data, and expertise across scientific disciplines

- **AI-Ready Services:** Operational services including AI models as a service, medium-scale training support, and distributed AI-ready data access

"EGI accelerates Europe's capacity for AI-based research by coordinating AI expertise, delivering training programmes, expanding AI capabilities, and developing solutions that enhance scientific productivity."

PILLAR

02

A Model for Incentivised Cross-Border Access_

As a trusted, neutral broker, we will overcome current barriers to cross-border access by implementing a sustainable, country-supported access model with clear incentives for resource providers, enabling researchers to seamlessly access specialised resources across Europe.

Strategic Goal 3

Build a Sustainable and Incentivised Federation Model

We address the current policy and funding barriers that limit cross-border resource sharing. We will develop frameworks supporting multiple incentive models aligned with provider needs, including academic recognition, capacity commitments, and funding opportunities. This makes resource sharing both sustainable and valuable for all participating members.

What We Will Deliver

- **Flexible Incentive Framework:** Governance supporting multiple incentive models including citations, capacity commitments, and funding aligned with provider constraints

- **Technical Compensation Systems:** Systems and tools supporting compensation for resource sharing across the federation

- **Regulatory Support:** Assistance for providers to reduce barriers for participation in cross-institute and cross-border provisioning

- **Pooled Cross-Border Capacity:** Growing numbers of providers with allocated capacity for cross-national access, operating to time and quality targets

- **European Catalogue Integration:** EGI service catalogue integrated into European-wide catalogues for transnational and virtual access

Strategic Goal 4

Diversified Funding Models

We address dependency on short-term project funding through funding diversification and optimised resource pooling. We will evolve our legal framework and establish multiple revenue streams whilst optimising in-kind contributions, ensuring both financial sustainability and strengthened federation capacity.

What We Will Deliver

- **Legal Framework Evolution:** Assessment of legal framework options (including ERIC, EDIC, and alternatives) with Council-approved recommendations and implementation roadmap

- **National Roadmap Integration:** Increased presence of EGI Federation in national research infrastructure roadmaps

- **Pay-for-Use Options:** Pay-for-use models available for federation members in alignment with national and member priorities

- **Optimised In-Kind Contributions:** Refreshed framework optimising federation capacity and member participation

- **Co-Financing Secured:** European and national co-financing to support EOSC participation and cross-border operations

- **Cross-Sector Business Models:** Validated models for the exchange of data and services across research and commercial sectors

"A cross-border resource access mechanism is available and supported in the EGI Federation to overcome current policy and funding barriers."

PILLAR

03

A Resilient and Sustainable Innovation Ecosystem_

We will build a resilient innovation ecosystem by empowering federation members to drive collaborative innovation through Special Interest Groups, providing platforms to enable their work, diversifying funding models, and facilitating resource pooling, so that innovations are sustained and evolved collaboratively beyond project lifecycles.

Position EGI as a Key R&I Actor for Federated Compute–Data Continuum

We will strengthen and align R&D contributions from across the Federation into an interconnected and collaborative programme supported by national and European funding, focusing on key priorities including federated trust and identity management, sensitive data management solutions, and digital twins.

What We Will Deliver

- **Integrated R&I Agenda:** An EGI R&I Agenda supported by national contributions (in-kind, in-cash) and strategically selected European project funding

- **Validated Technical Solutions:** Interoperable solutions for advanced computing across infrastructure, platform, application, data, and federation layers, validated and endorsed by research communities

- **Innovation Asset Registry:** A registry of reusable components and documentation enabling rapid adoption of innovations

- **Technology Maturation Pipeline:** A lean pipeline across the federation to accelerate innovation from prototype to production

- **Recognition as R&I Leader:** EGI innovations adopted and cited by major European research infrastructures, with strategic partnerships demonstrating sustained collaboration

Strategic Goal 6

Foster Continuous Innovation through a Connected Community

We build the human infrastructure required for continuous innovation and demonstrate its value. We strengthen Federation-wide collaboration by establishing community-led Special Interest Groups (SIGs), providing platforms to enable their work, and implementing systems to measure and communicate innovation impact.

What We Will Deliver

- **Active Special Interest Groups:** SIGs engaging federation members and research communities around priority R&D themes, open to private entities when beneficial

- **Collaboration Platforms:** Tools and platforms enabling SIG activities and knowledge sharing across the federation

- **Participatory Innovation Framework:** An EGI Collaborative Innovation Framework pooling R&D teams at national and institutional levels from multiple disciplines and sectors

- **Impact Measurement System:** Systems tracking innovation outcomes including services deployed, research enabled, and knowledge disseminated

- **Regular Impact Reporting:** Transparent demonstration of innovation adoption, citations, and stakeholder engagement

"By 2030, EGI is recognised as a key R&I actor for federated compute–data continuum where innovations persist beyond project lifecycles."

Partnerships_

Delivering on our value streams requires a network of strategic partnerships across the European research and innovation landscape.

EOSC

EGI provides the compute layer and federating capabilities for EOSC nodes, enabling researchers to process, analyse, and reuse FAIR data at scale within Europe's Open Science ecosystem.

RAISE

EGI supports AI for science with infrastructure, technical expertise, and AI-ready data access for model training, fine-tuning, and serving.

EuroHPC

EGI complements EuroHPC's extreme-scale HPC and AI Factory capabilities with distributed mid-scale Cloud, HTC, and HPC capacity through the Bring Your Own Infrastructure model.

ESFRI and Research Infrastructures

EGI aligns with ESFRI roadmap priorities, complements digital-sector Research Infrastructures, and enables thematic RIs to develop specialised Data Exploitation Services.

Data Providers and Data Spaces

EGI advances interoperability between research and commercial data services, enabling ecosystems where data can be discovered, accessed, and reused across sectors.

European e-Infrastructure Coordination

Through the e-Infrastructure Assembly and EC-participated initiatives, EGI ensures complementarity and seamless researcher experiences across European e-Infrastructures.

Technology and Industry Partners

EGI fosters joint innovation with R&D groups, industry, and SMEs, enriching the Federation with specialised services from public and private providers.

Who We Serve_

The EGI Federation serves diverse groups across the research and innovation landscape. Our engagement approach is tailored to each group's needs and scale.

Primary Groups

Research Communities & Research Infrastructures

Research communities and infrastructures push the frontiers of science with massive data and computational requirements. They have an international nature, decades-long lifetime, and strong need for shared e-infrastructures. We provide both services and expertise for community-specific solutions.

International Research Projects & Collaborations

International research projects, typically represented by EU-funded initiatives, cover many domains and regions. We offer IT services and technical support to run proof-of-concept and pilot setups, or to provision and operate complete e-infrastructure for their needs.

Secondary Groups

Individual Researchers & Small Groups

Researchers less experienced in advanced computing or lacking resources and support. We connect them to the most suitable service providers through common platforms and engagement frameworks.

SMEs & Industry

Partners in research and innovation. We help them access compute and data-intensive services for pre-competitive research, and facilitate collaborations as providers or R&D partners.

Public Administrations

Organisations enabling innovation in policy making, emergency management, and healthcare. We provide secure compute and data-intensive services for evidence-based decision making.

Policy Makers & Funding Agencies

Decision makers shaping research policy and funding programmes. We provide expert advice and inform them about trends and developments in research infrastructure.

What We Offer_

For the communities we serve, the EGI Federation offers a comprehensive portfolio of services and support.

Technical Services

Advanced computing services from horizontal and thematic providers covering:

- **Compute Continuum:** High-throughput computing, cloud, HPC integration, and quantum computing access
- **Data Services:** Storage, data management, and FAIR-compliant data access
- **AI Platforms:** AI-ready infrastructure, model serving, and training support
- **Thematic Platforms:** Domain-specific Virtual Research Environments and Digital Twins
- **Security Services:** Identity management, access control, and compliance support

Consultancy & Support

Expert assistance to build platforms and high-level services on existing capabilities. For larger communities, we create competence centres composed of experts from both user and provider sides, delivering tailored solutions for specific research challenges.

Training & Skills Development

Programmes helping research communities develop digital skills for modern IT and data use:

- Baseline and tailored training programmes (online and face-to-face)
- Training materials and shared learning resources
- Operator certification and service management training
- AI and data analytics skills development

Knowledge Sharing

Events and online forums to share knowledge, best practices, and solutions:

- Annual EGI Conference
- Technical workshops and webinars
- Special Interest Groups for collaborative problem-solving
- Documentation and knowledge base

Policy Advocacy

Mobilising the community to understand trends and needs in science and technology, advising policymakers and funders on future directions for research infrastructure investment.

Glossary_

For complete definitions, visit: go.egi.eu/glossary

- **EGI Federation** (or EGI) The EGI Foundation, EGI Foundation Participants and Associated Participants, and their linked organisations (such as service and resource providers) that contribute to the objectives of the Foundation.

- **EGI Foundation** (or EGI.eu or Stichting EGI) The legal entity, headquartered in Amsterdam, whose objective is to coordinate and develop the EGI infrastructure that provides long-term distributed compute and storage resources for research and innovation.

- **EGI Infrastructure** The digital infrastructure resulting from the federation of EGI Participants' facilities providing advanced computing services for research and innovation.

- **EGI** Can be used as a short version of "EGI Infrastructure" or "EGI Federation", but not for the EGI Foundation.

- **EGI Council** The supervisory authority consisting of one representative for each Participant and Associated Participant of the EGI Foundation.

- **EGI Participant** National Grid Initiatives (NGIs), European Intergovernmental Research Organisations (EIROs), European Research Infrastructure Consortia (ERICs), and other legal entities that contribute to the objectives of the Foundation. Participants have voting rights in the EGI Council.

- **EGI Federation Member (EGI Member):** An organisation directly (EGI Participants) or indirectly (formal relationship to an EGI Participant) represented in the EGI Council.

- **EGI Federation Partner (EGI Partner):** An organisation engaged with the EGI Federation via an MoU with the EGI Foundation and not directly represented in the EGI Council.

- **Research Infrastructures** Facilities that provide resources and services for research communities to conduct research and foster innovation, including major equipment, knowledge-related facilities, computing systems, and communication networks open to external users.

Funded by the European Union

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AI-Ready Compute & Data Continuum
for Research and Innovation

Our Ambition

By 2030, the EGI
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essential federated
AI-ready compute–
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Connect With Us

Website:
www.egi.eu

Phone:
+31 (0)20 89 32 007

Email:
contact@egi.eu

EGI Federation for Data-Intensive Research

EGI Foundation

Science Park 140
1098 XG Amsterdam
Netherlands

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egieinfra.bsky.social

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